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Article

In the Service of Good Journalism and Audience Interests? How Audience Metrics Affect News Quality

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Abstract

A large and growing body of literature shows that audience metrics exert a significant influence in many newsrooms around the world. Scholars assume that this might affect the quality of news, but findings on how audience metrics influence news quality and media performance are scattered. Based on a widely used set of news quality criteria, this article is the first to focus on this question. It reviews and discusses the existing findings by considering the influence of audience metrics across four analytical dimensions: A) the allocation of resources and recognition; B) the volume, practices and rhythms of news production; C) the selection and placement of topics; and D) the formats and styles of news presentation. The analysis reveals that journalists' use of audience metrics has a mainly negative impact on news quality. This effect is the result of both the growing economic pressures on newsrooms and a dominant rhetoric that equates measures of audience size with audience interests and good journalistic work.

Keywords

analytics; audience; datafication; journalism; media performance; metrics; news quality; quantification; soft news; tabloidisation

Issue

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1. Introduction

Since the pioneering studies of MacGregor (2007) and Anderson (2011), reflection on the role of audience metrics in newsrooms “has become an important new area in journalism research” (Bruns, 2016, p. 521), with more than 100 studies shedding light on this issue. Overall, these studies indicate a strong orientation towards quantified audiences. Although social media shares and likes have increased in importance (e.g., Ferrucci, 2020), many newsrooms still prioritise page views and unique visitors, as these are the currencies that are key to earning advertising revenues (Belair-Gagnon, 2019; Blanchett Neheli, 2018; Christin, 2018; Giomelakis, Sidiropoulos, Gilou, & Veglis, 2019; Nelson & Tandoc, 2019; Slaček Brlek, 2018; Tandoc, 2014; Vu, 2014; Wang, 2018). Most scholars presume that page views and unique visitors dis-

play “audience interests,” “preferences,” “needs,” and “taste,” therefore considering the growing influence of metrics as indicative of the empowerment of the audience (Bright & Nicholls, 2014, p. 178; Karlsson & Clerwall, 2013, pp. 67–69; Tandoc, 2019, pp. 18–19; Vu, 2014, pp. 1095, 1106; for a critical perspective, see Groot Kormelink & Costera Meijer, 2018). Others argue that the growing impact of these metrics is primarily motivated by commercial pressure (Currah, 2009; Moyo, Mare, & Matsilele, 2019; Nguyen, 2013; Phillips, 2015). Both perspectives, however, see audience metrics as likely to weaken journalistic autonomy and the traditional criteria of newsworthiness.

Hence, audience metrics are crucial for reflecting on changes in media performance due to digitisation and datafication (Bruns, 2016; Wang, 2018). However, although it is assumed that metrics-driven practices “even-

tually affect the quality of news" (Vu, 2014, p. 1107), little attention has been paid to this "important question" (Tandoc & Vos, 2016, p. 963). To date, no studies or reviews have focused on the relationship between audience metrics and news quality. Further, studies on audience metrics seldom refer to terms such as news "quality" or "good" journalism, whereas research on news quality and media performance takes little notice of the role of audience metrics (e.g., Eisenegger, Schranz, & Gisler, 2017; Meier, 2019; van der Wurff & Schoenbach, 2014).

Thus, this article aims to address this gap in the literature by systematically reviewing and discussing the scattered findings on how audience metrics might impact news quality. First, a literature search was conducted using Google Scholar and the database Communication & Mass Media Complete (CMMC). With CMMC, broad search terms were used ("audience metrics" OR "web metrics" OR "audience analytics" OR "web analytics") in order to identify a wide range of relevant publications. Articles that contained one of these search terms in the title, keywords or abstract were collected and read ($n = 95$). Since Google Scholar displays a vast number of results, this search was conducted with the following terms related to news quality: search terms 1 ("audience metrics," "web metrics," "audience analytics," "web analytics") in combination with search terms 2 ("journalistic quality," "news quality," "media performance," "clickbait," "performance journalism," "journalism quality"). The combination of search terms 1 and 2 led to 24 searches. For each of these 24 searches, the first 30 results (as listed by relevance) were collected and read. Both the CMMC and Google Scholar searches captured all articles published before 29 February 2020. Studies were considered relevant if they provided empirical findings or original considerations on the influence of audience metrics on news quality, and if they were published as journal articles, books, book chapters or research reports. In cases where authors published the same findings and considerations in different places, only the most recent publication was included. The 44 studies that were found contained further information on relevant research articles, which were then also read and included, resulting in the addition of 19 publications. As most studies in this research area are published in scientific journals, this review is mainly based on journal articles. However, it is also comprised of studies that were published as books (e.g., Currah, 2009; Tandoc, 2019), research reports (e.g., Cherubini & Nielsen, 2016), and book chapters (e.g., Poell & van Dijck, 2015), including handbook articles (e.g., Bruns, 2016).

Since the understanding of news quality differs depending on the applied theoretical approach and normative perspective, "there is no consensus in international research concerning the exact labelling, form, and number" (Meier, 2019, p. 3) of criteria of news quality. However, many studies consider the following criteria as important (Arnold, 2008; Belair-Gagnon, 2019; Blanchett Neheli, 2018; Eisenegger et al., 2017; Lacy

& Rosenstiel, 2015, pp. 27–28; Magin, 2019; McQuail, 1992; Meier, 2019): diversity of topics and sources; comprehensiveness of coverage (range or fullness of topics) and relevance in terms of public issues and political information (most important topics); independence from economic and political interests; accuracy of reporting; in-depth reporting (providing context); investigative and original reporting; clarity (clear, concise and non-sensational style); and timeliness (novelty and references to current debates). In contrast, tabloidisation is seen as an increase of news that is generally considered to be of lower quality, with a dominance of politically irrelevant topics (soft news), a focus on episodic framing and a visual, emotionalised, opinion-driven style (Magin, 2019). Understandings of news quality also vary between different groups in society (Lacy & Rosenstiel, 2015; Meier, 2019; Molyneux & Coddington, 2020). However, research has shown that many users expect the abovementioned features: They are particularly interested in information about political and local topics (De Waal & Schoenbach, 2010, p. 485; Lacy & Rosenstiel, 2015) and expect news media to report independently and accurately, convey diverse positions, provide contextual information and offer an overview of the most recent and important events and topics. In contrast, entertainment and journalists' personal views play a significantly more limited role in users' expectations of journalism (Abdenour & Riffe, 2019; Costera Meijer, 2013; Heise, Loosen, Reimer, & Schmidt, 2014; Neuberger, 2014; van der Wurff & Schoenbach, 2014).

Based on the abovementioned criteria of news quality, this article reviews and discusses existing findings on the interplay of media performance and audience metrics. In doing so, it analytically distinguishes the influence of audience metrics across four dimensions: the allocation of resources and recognition (Section 2); the volume, practices and rhythms of news production (Section 3); the selection and placement of topics (Section 4); and the formats and styles of news presentation (Section 5). Within these sections, explicit references to the abovementioned news quality criteria or the overall news quality are highlighted with italics. The article concludes with reflections on how datafication establishes new norms of evaluation that are linked to a rhetoric of audience empowerment while actually neglecting audience interests and quality issues (Section 6).

2. Allocation of Resources and Recognition

Due to shrinking advertising revenues and the financial crisis in journalism, the recent decade has brought significant cutbacks to many newsrooms across the world. Editorial departments, many of which have been restructured into integrated newsrooms, face the challenge of producing more content for various channels while employing fewer journalists. Therefore, the working conditions of journalists have deteriorated, with many journalists feeling pressured to produce more articles in less

time (Agarwal & Barthel, 2015; Chadha & Wells, 2016; Currah, 2009; Phillips, 2015; Puppis, Schönhagen, Fürst, Hofstetter, & Meissner, 2014; Siegelbaum & Thomas, 2016). Given this scarcity of resources in newsrooms, the emergence of new job profiles and new areas of responsibility is even more striking. One of these new profiles and tasks is the analysis and optimisation of audience metrics, with job titles such as “social media,” “audience,” “traffic” or “growth” editor (Belair-Gagnon, 2019, p. 765; Cherubini & Nielsen, 2016, p. 9; Ferrer-Conill & Tandoc, 2018, p. 441; Hagar & Diakopoulos, 2019, p. 122; Lamot & Paulussen, 2020, p. 364; Poell & van Dijck, 2015, p. 194). These editors are responsible for increasing the overall traffic of the editorial content and identifying trending topics that are likely to drive traffic, often by means of search engine optimisation (SEO) and social media optimisation (SMO). They identify ‘popular’ terms and topics and make recommendations to their colleagues as to which of these should be included in their reporting (Bunce, 2015; Christin, 2018; Phillips, 2015; Poell & van Dijck, 2015; Schlesinger & Doyle, 2015; Tandoc & Vos, 2016).

The use of audience metrics is becoming an integral part of the daily work of journalists. In many editorial offices, journalists are expected to check the page views of their articles at least once a day. In addition, audience metrics are regularly reviewed in editorial meetings or sent via e-mail to the entire newsroom, typically as a ranking of the most popular articles of the day, week or month (Anderson, 2011; Belair-Gagnon, 2019; Blanchett Neheli, 2018; Cherubini & Nielsen, 2016; Christin, 2018; Ferrer-Conill & Tandoc, 2018; Ferrucci, 2020; Karlsson & Clerwall, 2013; Lamot & Paulussen, 2020; Lawrence, Radcliffe, & Schmidt, 2018; Moyo et al., 2019; Nelson & Tandoc, 2019; Schlesinger & Doyle, 2015; Tandoc, 2014; Usher, 2012, 2016; Whittaker, 2018). Besides monitoring audience metrics, journalists are increasingly expected to promote their articles on social media and build up a followership to enhance traffic numbers (Agarwal & Barthel, 2015; Chadha & Wells, 2016; Siegelbaum & Thomas, 2016; Tandoc & Vos, 2016; Whittaker, 2018). The work and performance of journalists is judged more and more by their ability to generate traffic (Bunce, 2015, 2019; Lamot & Paulussen, 2020; Nelson & Tandoc, 2019; Tandoc & Vos, 2016; Usher, 2012). Audience metrics not only give journalists “a sense of success...but also of the expectations that exist at the managerial level about what constitutes good newswork” (Bucher, 2017, p. 928; see also Anderson, 2011, p. 562; Bunce, 2019; Duffy, Ling, & Tandoc, 2018; Lawrence et al., 2018, pp. 1227–1228; Tandoc, 2019; Wang, 2018, p. 484). In some newsrooms, editors are paid based on page views, with metrics being used to allocate resources and stimulate competition among editors (Currah, 2009, p. 87; Ferrer-Conill, 2017; Moyo et al., 2019, p. 501; Petre, 2015). Some journalists even “think that they are not doing a good job when their articles no longer appear in the top 10 for a few days” (Lamot & Paulussen, 2020, p. 366). The “phrase

‘doing well’ has entered the field’s lexicon to refer to stories that draw high audience metrics” (Tandoc, 2019, p. 69) or to acknowledge that journalists did a good job in terms of increasing page views (Groves & Brown-Smith, 2011, p. 117). In contrast, recognition for and discussions of *journalistic quality* are diminishing (Slaček Brlek, 2018; Usher, 2012) or are increasingly overruled by the argument that page views provide a more objective and useful indication of which headline or story is “better” (Hagar & Diakopoulos, 2019, pp. 120–122). In the words of an interviewed journalist: “Really, no emails are circulating about what the best stories are, just the ones getting clicks” (Ferrucci, 2020, p. 252).

Thus, the monitoring, analysis and optimisation of audience metrics require resources, thereby further reducing the already scarce time, money, and personnel assigned to the production of news articles. The reduction of these resources is known to have a negative impact on the *overall quality* of news coverage (Puppis et al., 2014; Reich & Godler, 2014; Siegelbaum & Thomas, 2016). In the long run, audience metrics also change journalists’ understanding of what *good journalism* means and how it is accomplished.

3. Volume, Practices and Rhythms of News Production

With many media users searching for news several times a day and a stiff competition for attention, newsrooms experience a growing pressure to constantly update their websites (Usher, 2016, 2018). At the same time, journalists must prepare their content for multiple channels and platforms (Agarwal & Barthel, 2015; Currah, 2009; Hanusch, 2017; Tandoc, 2014). This high and constant demand for new stories often results in limited opportunities for journalists to produce original articles, instead encouraging the proliferation of pre-packaged material. This practice is called “churnalism” (Thurman & Myllylahti, 2009, p. 701) and includes the dissemination of not only public relations material and news agency copy, but also stories published by other media outlets (Arenberg & Lowrey, 2019; Groves & Brown-Smith, 2011; Phillips, 2015; Thurman & Myllylahti, 2009). The latter is also labelled as “news aggregation” and refers to “the practice of taking information from published sources, reshaping it, and republishing it” (Molyneux & Coddington, 2020, p. 429). Aggregation has “become one of the dominant forms of digital newswork” (Molyneux & Coddington, 2020, p. 429) and is typically based on one or few sources without the addition of substantial information or context (Agarwal & Barthel, 2015; Molyneux & Coddington, 2020).

This practice of churnalism is driven by both the challenges of increasing workload and the monitoring of audience metrics (Agarwal & Barthel, 2015; Molyneux & Coddington, 2020; Thurman & Myllylahti, 2009). Many journalists track and slightly rewrite popular content in order to produce “quick hit” pieces (Siegelbaum & Thomas, 2016, p. 400; Usher, 2016, p. 174), meaning

breaking news and “quick stories, with few sources, that are likely to generate traffic” (Arenberg & Lowrey, 2019, p. 143), often with the use of SEO or SMO strategies (Poell & van Dijck, 2015; Usher, 2012). This can make journalists feel that they are no longer doing “quality journalism” (Usher, 2018, p. 26). As the online editors of the two leading daily newspapers in Slovenia and Serbia described it, “we sit, skim the web looking for information and reassemble it” (Vobič & Milojević, 2014, p. 1032; for US journalists see Agarwal & Barthel, 2015). In their view, journalism has become a matter of “pure economy” where they “hunt for clicks by following what is out there online and what might get our readers’ attention” (Vobič & Milojević, 2014, p. 1032). The “constant stream of breaking news” (Usher, 2018, p. 29) is also motivated by the need to increase audience traffic. A strong orientation towards metrics can lead to the strategy of massively expanding the amount of published content. The rationale here is that most articles—taken alone—will generate little traffic, while the mass of reports as a whole could draw sufficient traffic and, therefore, advertising revenue (Blanchett Neheli, 2018; Christin, 2018; Ferrer-Conill, 2017; Petre, 2015; Poell & van Dijck, 2015; Thurman & Myllylahti, 2009; Usher, 2016).

The scarce resources that are available are increasingly allocated according to whether they directly translate into driving traffic. What becomes less important is checking information to ensure *accuracy*, adding first-hand (*original*) and *diverse sources* and building up a network of informants that, in the long term, allow for *in-depth coverage* and the *diversity of sources*. Instead, researching sources and “going outside means losing time in traffic” (Boesman, d’Haenens, & Van Gorp, 2015, p. 917; see also Agarwal & Barthel, 2015; Currah, 2009; Phillips, 2015; Siegelbaum & Thomas, 2016). Newsrooms that focus strongly on measures of audience size “may find it difficult to justify long-term investment in potentially loss-making activities such as in-depth investigative journalism” (Bruns, 2016, p. 521). This is supported by interviews with journalists: the pressure to gain high audience numbers results in journalists doing less *original reporting* and *in-depth investigations* (Agarwal & Barthel, 2015; Groves & Brown-Smith, 2011; Petre, 2015; Usher, 2018).

Audience metrics not only influence the volume and practices of news production but also its rhythms. The workflows in editorial offices are strongly influenced by the times at which users access content. Online newsrooms monitor and evaluate this closely (Belair-Gagnon, 2019; Duffy et al., 2018; Ferrucci, 2020) in order to produce and publish articles “when they are likely to achieve the highest readerships” (Schlesinger & Doyle, 2015, p. 320). Moreover, some newsrooms use day-parting as a strategy to enhance the number of page views and visitors:

This may mean giving readers news alerts to their mobiles first thing in the morning, something lighter

to read at lunch time, something different in the afternoon, more mobile content to read on their way home from work, and fresh content in the evening. (Thurman & Myllylahti, 2009, p. 702)

In the case of an Australian digital-only newsroom, the amount of soft news reportedly increases during the day, so that “when people are on their way home, or have just gotten home, the tone of the site does shift, because that’s what people are looking for at that time of the day” (Hanusch, 2017, p. 1581). As a consequence, users cannot generally expect a certain *news quality*. While *timeliness* is enhanced, it becomes more difficult to get an *overview of the most important news*. The most prominently placed stories on the homepage no longer reflect the news value and *relevance* of these topics—as users usually expect (Costera Meijer, 2013; von Krogh & Andersson, 2016). Instead, the selection and presentation of news is adapted to the average usage behaviour of each hour and the metrics-driven anticipations of what users might want to read.

4. Selection and Placement of Topics

The influence of audience metrics on the selection and placement of topics is a particularly important area of current research, as it is strongly intertwined with notions of journalistic autonomy (Anderson, 2011; Boesman et al., 2015; Phillips, 2015), given that journalists select topics according to their own professional selection criteria. News values include celebrity, entertainment, personalisation and visuality (Eilders, 2006; Harcup & O’Neill, 2017), which are typical characteristics of soft news or tabloidisation (Magin, 2019; Reinemann, Stanyer, Scherr, & Legnante, 2012). However, the core of news values—such as controversy, continuity, reach, and proximity (Eilders, 2006)—is oriented towards social relevance and public affairs (Lamot & Van Aelst, 2020) and therefore reflects the societal role and function of journalism, which is to provide a public forum for the ongoing discourse in society (Arnold, 2008). This societal role is addressed in normative ideas regarding the public mission of media, which have been expressed not only by scientists and media policy-makers but also by journalists and media users (Arnold, 2008; Costera Meijer, 2013; McQuail, 1992). While the traditional principles of journalism draw a strong distinction between hard news and soft news due to differing *relevance* (Reinemann et al., 2012), audience metrics put all articles “on the same scale” (Christin, 2018, p. 1389).

Numerous studies have shown that newsrooms increasingly select topics according to audience metrics (e.g., Anderson, 2011; Blanchett Neheli, 2018; Bunce, 2019; Ferrucci, 2020; Giomelakis et al., 2019; Hanusch, 2017; Puppis et al., 2014; Tandoc, 2019; Usher, 2016). Interviews with journalists reveal that the editorial staff not only has to produce important and prestigious articles but also stories that serve as ‘click hits’ or ‘mag-

nets' (Arenberg & Lowrey, 2019; Belair-Gagnon, 2019, p. 768; Currah, 2009, p. 86; Hanusch, 2017, p. 1579; Siegelbaum & Thomas, 2016, p. 400). If the coverage does not generate enough traffic over a certain period of time, "[the news desk] will publish some populist story like a story about David Beckham's underwear to get reader figures up quickly" (Thurman & Myllylahti, 2009, p. 699). Moreover, the quest for traffic often leads to producing many articles in a short time (see Section 3), with constant eyes on available content for aggregation as well as trending topics on social media that could be used to produce "quicker hits and little things"—even though journalists may sometimes feel that this information is not *relevant* but "'trivial,' or 'inane,' and did not merit any attention" (Chadha & Wells, 2016, p. 1026; see also Bunce, 2015; Usher, 2012). Based on a rhetoric of audience interests and journalists' performance, such high-traffic stories deemed not newsworthy can still gain a specific worth: "But again, the audience obviously on that day really wanted that story...and we did well that day" (Blanchett Neheli, 2018, p. 1045). A growing number of newsrooms take for granted that audience metrics directly reflect what people want, need, and think (Chua & Westlund, 2019; Ferrucci, 2020; Lamot & Paulussen, 2020).

Both researchers and the journalists themselves assume that a strong orientation towards audience metrics will eventually translate into a rise of soft news and tabloidisation (Bright & Nicholls, 2014, p. 172; Currah, 2009, p. 87; Karlsson & Clerwall, 2013, p. 69; Moyo et al., 2019; Puppis et al., 2014; Tandoc & Thomas, 2015). Some perfect examples of this traffic-driven tabloidisation are stories about animals, crime, sex, and celebrities (Anderson, 2011, p. 561; Blanchett Neheli, 2018, p. 1045; Christin, 2018, p. 1403; Currah, 2009; Hanusch, 2017, p. 1579; Nguyen, 2013; Tandoc, 2014, p. 570; Usher, 2018). The monitoring of audience metrics has also motivated quality news media to add "entirely new categories of coverage—such as 'celebrity,' 'lifestyle' and 'weird'"—to their websites (Currah, 2009, p. 88).

If news websites have not established a paywall or subscription model, their financing is based solely on advertising revenues, which are typically contingent upon the number of page views and unique visitors (Blanchett Neheli, 2018; Cherubini & Nielsen, 2016; Christin, 2018; Petre, 2015; Tandoc, 2014; Thurman & Myllylahti, 2009). In the face of growing economic pressure and scarce resources, journalists increasingly find themselves in conflict to meet both professional selection criteria and objectives to maximise audience metrics (Currah, 2009, p. 48; Lee, Lewis, & Powers, 2014, p. 512; Schlesinger & Doyle, 2015; Tandoc, 2014, 2019; Thurman & Myllylahti, 2009, p. 699). Accordingly, articles with a high number of page views usually receive follow-up reports, while those with lower audience traffic are less likely to receive further coverage, regardless of content, *quality*, and journalistic *relevance* (Arenberg & Lowrey, 2019, p. 141; Bunce, 2015; Currah, 2009, p. 47; Ferrucci, 2020;

Karlsson & Clerwall, 2013, pp. 72–73; Lamot & Paulussen, 2020, p. 367; MacGregor, 2007, p. 288; Moyo et al., 2019; Tandoc, 2014, p. 567; 2019, p. 45; Vu, 2014, p. 1104; Welbers, van Atteveldt, Kleinnijenhuis, Ruigrok, & Schaper, 2016). Due to expectations of high audience traffic, journalists are sometimes "forced to look for angles and come up with something when actually nothing has changed" (Bunce, 2015, p. 20), leading to deception in terms of *timely* and *relevant news*.

Moreover, high-traffic articles typically "spend longer in the spotlight" (Bright & Nicholls, 2014, p. 178), while reports with lower numbers of page views are moved further down the homepage or are completely removed from it (Anderson, 2011, pp. 560–561; Blanchett Neheli, 2018, p. 1046; Bright & Nicholls, 2014, p. 178; Christin, 2018; Karlsson & Clerwall, 2013, p. 72; MacGregor, 2007, p. 287; Meier & Tüshaus, 2006; Tandoc, 2014, p. 568; Vu, 2014; with contrary findings: Lee et al., 2014). Since audience metrics fuel competition among journalists, the placement of stories is also influenced by journalists feeling pressured to increase the traffic of their articles. Some journalists try to convince editors to place their articles prominently on the homepage in order to boost their personal record of attracting page views (Lamot & Paulussen, 2020, p. 366). Furthermore, previous audience numbers are used as arguments in editorial discussions when "journalists argue for a more prominent position on the front page" (Bucher, 2017, p. 929). In the long run, the regular monitoring of audience metrics illuminates the kinds of topics that generally attract a lot of traffic, which are then covered more often and more prominently (Agarwal & Barthel, 2015, p. 388; Arenberg & Lowrey, 2019; Belair-Gagnon, 2019; Karlsson & Clerwall, 2013, p. 73; MacGregor, 2007; Meier & Tüshaus, 2006; Moyo et al., 2019; Tandoc, 2019, p. 45). These practices and trends weaken *journalistic independence* as well as the professional standards of news selection that value *relevance*, as editorial values are increasingly overpowered by the economically motivated pursuit of the largest possible audience.

Nevertheless, journalists not only admit the influence of audience metrics and perceive a trend towards tabloidisation, but they also point out that established selection criteria and their professional judgement are often, or even mostly, a priority (Bright & Nicholls, 2014, p. 173; Chua & Westlund, 2019, pp. 160–161; Duffy et al., 2018; Karlsson & Clerwall, 2013, p. 73; Meyen & Riesmeyer, 2009, p. 182; Thurman & Myllylahti, 2009, pp. 698–699; Whittaker, 2018). Although soft news is said to be increasing, partly due to day-parting (see Section 3), coverage is all in all considered to be a mix of hard news and soft news (Hanusch, 2017; Lamot & Paulussen, 2020). This could potentially indicate that the orientation toward audience metrics has its limits: Professional selection and *relevance* criteria have lost some of their significance, but they are still very important. For example, journalists consider it a problem to neglect topics with high journalistic relevance, insofar as "it

just makes you look bad if you're a big news site and you don't have the right news there" (Anderson, 2011, p. 560; see also Bucher, 2017, p. 926; Hanusch, 2017, p. 1579; Lamot & Paulussen, 2020, pp. 366–367). However, while they may assign particular relevance to hard news, they are also inclined to place soft news more prominently to attract high numbers of page views. Recent evidence suggests that the selection and placement of soft news, compared to hard news, is more dependent on audience metrics (Lamot & Van Aelst, 2020; Nelson & Tandoc, 2019). However, it should be acknowledged that journalists "may also feel a need to underemphasize what is regarded by many as an essentially negative habit of placing popularity over importance in the news" (Bright & Nicholls, 2014, p. 173; see also Hanusch, 2017, p. 1583; Slaček Brlek, 2018, p. 225). Moreover, as audience metrics are regularly used in newsrooms across the world, their influence might increasingly go unnoticed by journalists (Duffy et al., 2018, p. 1142).

Thus, research cannot rely solely on findings from surveys and interview studies. Ethnographic studies that combine participant observation and interview methods reveal that journalists refer to the importance of a balance between maximising audience metrics and maintaining editorial values, while "most of the time, the balancing act does not lead to the ideal, and often, it tips towards the goal of increasing traffic by using web analytics to come up with click-bait stories" (Tandoc, 2014, p. 570). Such studies can also yield conflicting findings. While a managing editor of a French online-only news website explained that important news about the civil war in Syria and similar stories are chosen as lead stories despite their comparatively low page views, other editors revealed that tabloid topics make for good leads (Christin, 2018, pp. 1401–1404). Thus, more in-depth studies are needed on how newsrooms try to balance these different logics and principles, including analyses that compare journalists' perceptions with the actual coverage of the outlet. A pioneering study of Welbers et al. (2016) combined content analysis with interviews and found that page views influenced the journalistic selection of topics, but that editors predominantly denied such an influence.

One relatively hidden consequence of this trend is that, given the scarcity of resources in many newsrooms, the selection and frequent updating of high-traffic stories comes at the expense of journalistically *relevant* topics that then receive little to no *investigation* and coverage (Moyo et al., 2019, p. 503; Petre, 2015, p. 7). This reduces the *comprehensiveness of coverage*.

5. Formats and Styles of News Presentation

A few studies indicate that the monitoring of audience metrics has contributed to a rise of "personal stories" (Poell & van Dijck, 2015, p. 193), comment and opinion pieces (Currah, 2009, pp. 88, 129–132), and "'blog posts,' or pieces that are shorter and less closely edited

than regular articles" (Christin, 2018, p. 1395). Such blogs, in many cases run by legacy media organisations, present "breaking news in an 'informal and conversational' manner" or give "readers the latest updates on unfolding new events, often without providing the supporting context" (Poell & van Dijck, 2015, p. 193). Another traffic-driven development is the increased use of photos, graphics, and videos (Currah, 2009; Duffy et al., 2018; Schwalbe, Silcock, & Candello, 2015; Vu, 2014). Galleries with visual content as well as slideshows are typical examples that are designed to boost page views (Christin, 2018, p. 1403; Currah, 2009, p. 72; Petre, 2015, p. 5; Schlesinger & Doyle, 2015). Visual content has also become more important because, compared to plain text, it generates more traffic on social media (Poell & van Dijck, 2015, pp. 186, 193; Schwalbe et al., 2015) with often minimal *contextual information* (Christin, 2018, p. 1403; Schwalbe et al., 2015). Due to the analysis of audience metrics, some newsrooms have significantly shortened the length of video clips at the cost of *in-depth reporting* (Duffy et al., 2018).

There is strong evidence that not only formats but also styles of presentation have changed due to audience metrics. While early studies concluded that audience metrics are rarely used for the immediate modification of articles (MacGregor, 2007), more recent studies indicate that news reports are often modified if they do not generate the expected number of page views, in particular by changing headlines or exchanging pictures and videos (Bodó, 2019; Karlsson & Clerwall, 2013; Moyo et al., 2019; Slaček Brlek, 2018; Tandoc, 2014; Whittaker, 2018; Wyss, 2013). On the basis of these information cues, users decide whether or not to click on an article. When an article receives less page views than others, journalists often think that they must have done something "wrong" (Karlsson & Clerwall, 2013, pp. 68, 72–73; Meyen & Riesmeyer, 2009, p. 185; Whittaker, 2018, p. 86). This is then often seen as a call to rewrite the headline or parts of the text so that important stories can find their way to users (Bodó, 2019; Karlsson & Clerwall, 2013, p. 73; Meier & Tüshaus, 2006; Slaček Brlek, 2018; von Krogh & Andersson, 2016, p. 1061). However, it remains unclear whether these metric-driven changes contribute to improved *clarity* of an article or, for instance, to sensationalism or clickbaiting, of which Ferrucci (2020, p. 254) gives an example.

Moreover, some newsrooms systematically base their decisions regarding the style of articles on how this affects traffic. A/B testing, through which (typically two different) sections of the audience are shown different headlines of a story within a short span of time, is applied in order to come up with a "winning" headline that attracts the most page views (Belair-Gagnon, 2019, p. 766; Hagar & Diakopoulos, 2019, p. 120; Lamot & Paulussen, 2020, p. 367). Some journalists consider those "winning" headlines and pictures to be the 'better' ones (Belair-Gagnon, 2019; Hagar & Diakopoulos, 2019; Meier & Tüshaus, 2006). Here, measures of audience size

are “equated with a job well done” and the serving of audience interests (Tandoc, 2014, p. 569).

Monitoring and adapting to metrics can have long-term effects. Articles are increasingly created in such a way that they are more likely to attract many users, including traffic from search engines and social media. The accumulated experience of editors in dealing with metrics as well as SEO/SMO strategies and A/B testing (Hagar & Diakopoulos, 2019, p. 121; Poell & van Dijk, 2015) can reinforce *tabloidisation*. Indicators of this are the use of simplifications, exaggerations, and sensational elements (Phillips, 2015; Wyss, 2013) as well as headlines containing names of prominent people and words such as “bra,” “naked,” and “sex” (Blanchett Neheli, 2018, p. 1045; Christin, 2018, p. 1403; Meier & Tüshaus, 2006, p. 4; Meyen & Riesmeyer, 2009, p. 181; Tandoc, 2014, p. 568). An online-specific tabloid style is the clickbait headline (Magin, 2019, p. 1708). Considered as a tactic that misleads users in order to boost traffic, many journalists show an aversion towards clickbait and deny such practices (Belair-Gagnon, 2019; Hagar & Diakopoulos, 2019, p. 121). They try to use a style that is “sexy” (Moyo et al., 2019, p. 502) but not “too ‘clickbaity’” (Lamot & Paulussen, 2020, p. 367)—although sometimes resorting to it anyway (Blom & Hansen, 2015; Kilgo & Sinta, 2016; Kuiken, Schuth, Spitters, & Marx, 2017; Tandoc, 2014, p. 570). Instead of *clarity*, clickbait headlines create an information gap and raise exaggerated expectations (for instance, ‘You would never believe what this...’). Taken together, these findings clearly point to the *increasing tabloidisation and homogeneity of news coverage*.

6. Conclusion

This article has distinguished between four basic dimensions of journalistic production processes in newsrooms and, by systematically reviewing the research literature, it has found that audience metrics have a mainly negative impact on news quality (following the news quality criteria given in the Introduction), particularly in profit-driven newsrooms and in connection with growing economic pressures. With respect to the *allocation of resources and recognition*, it has become clear that audience metrics further exacerbate an already precarious situation. Despite significant staff cuts, new jobs are created that focus on how to increase audience traffic. Moreover, most journalists are expected to monitor and optimise audience metrics and are valued for ‘doing well’ in this matter. This development amplifies the problem of scarce resources for investigating and writing news stories and is therefore considered as an “indirect indicator” (Lacy & Rosenstiel, 2015, p. 29) of decreasing news quality. Moreover, audience metrics have changed the *volume, practices, and rhythms of news production*. To maximise traffic, many newsrooms aim to produce a large number of ‘quick hit’ stories and a potentially diverse supply of up-to-date content. However, this is accompanied by a decrease of original coverage, investigative journal-

ism and source diversity. As audience traffic becomes more important, less emphasis is placed on researching and verifying information and providing a comprehensive overview of current events and relevant topics. The findings on the *selection and placement of topics* have shown that journalists increasingly select, present and follow up on topics depending on audience numbers and regardless of journalistic relevance and newsworthiness. This tends to lead to an increase in more prominently placed soft news, while some topics of public interest are likely to receive little to no investigation and coverage. This trend reduces the comprehensiveness of coverage and clearly weakens journalistic independence and editorial values. Lastly, the systematic review has revealed that the use of audience metrics stimulates the tabloidisation of *formats and styles of news presentation*, including clickbaiting, sensationalism and a stronger focus on visual content.

Most studies discussed in this review were conducted by means of qualitative interviews with journalists, ethnographic newsroom observations and standardised surveys of journalists, therefore using “expert judgements” (Lacy & Rosenstiel, 2015, p. 29; see also Meier, 2019, p. 6) on changes in news quality. The statements and perceptions of journalists are particularly important when it comes to determining (the lack of) independence from economic interests, comprehensiveness of coverage, original reporting, and accuracy since they are often aware of how the quest for high audience numbers has prevented them from following editorial values, reporting on and investigating important topics, and checking basic information. In the future, however, more studies are needed that conduct content analyses and combine different methods (see Welbers et al., 2016) to further examine the impact of audience metrics on news quality.

Journalists sometimes feel that they have to abandon professional standards of news quality in order to optimise traffic and respond to economic pressures. However, in many cases, audience metrics have already changed how journalists perceive news quality, good journalistic work, and audience expectations. Traffic numbers are often regarded as precise and objective indications of audience interests and are used to justify decisions that are uncertain or contradict professional journalistic standards (Bunce, 2019; Christin, 2018; Hagar & Diakopoulos, 2019; Usher, 2012; Whittaker, 2018). As Bucher (2017, p. 929) has put it, audience metrics “become imbued with discursive power used to negotiate with.” This goes beyond economic pressures and the commercialisation of news media and concerns all media types—even those that conceive themselves as mostly independent from commercial influences (Ferrucci, 2020; Hanusch, 2017; Lawrence et al., 2018; Puppis et al., 2014, p. 21; Usher, 2012).

Yet, audience expectations are much more complex and actually align with the core journalistic standards of news quality (Abdenour & Riffe, 2019; Costera Meijer,

2013; De Waal & Schoenbach, 2010; Heise et al., 2014; Neuberger, 2014; van der Wurff & Schoenbach, 2014). In this light, the recent traffic-driven developments in journalism clearly undermine audience interests and the reputation of news media. Reception studies have revealed that page views and unique visitors are currencies of the advertising industry that are not instructive to capture audience interests (Costera Meijer, 2013; Groot Kormelink & Costera Meijer, 2018). Datafication and audience metrics therefore do not empower the audience to take on the role “as gatekeeper” (Vu, 2014) or serve news-interested and loyal users (Costera Meijer, 2013; Phillips, 2015; Usher, 2012, p. 1911). Instead, the dominant audience metrics put the short-term behaviour of all online users, including “casual visitors” (Phillips, 2015, p. 79) looking for various kinds of content, first and lead to a redefinition of journalistic standards of news production.

All in all, the findings in this article correspond to longitudinal content analyses that have found a decline in the news quality of selected print, online, and broadcasting media in recent years (Eisenegger et al., 2017; Karidi, 2018). However, the impact of audience metrics should also be considered on the macro level. In terms of the media system as a whole, the growing importance of audience metrics coupled with a decline in journalistic resources tends to reduce the diversity and quality of news: a large amount of similar or even identical content is created, with many reports receiving little verification and contextualisation, thereby fuelling the dissemination of inaccurate or superficial information. In times of precarious working conditions, scarce newsroom resources, and an abundance of information, it has become more crucial than ever how journalists understand their professional role and audience interests—well beyond traffic data that cannot capture the quality of news and its value in the eyes of the audience.

Conflict of Interests

The author declares no conflict of interests.

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